

Enlightenment and Revolution**Lesson 1****The Scientific Revolution****Key Terms and People**

geocentric theory in the Middle Ages, view which held that the earth was an immovable object located at the center of the universe

Scientific Revolution new way of thinking about the natural world based on careful observation and the questioning of accepted beliefs

heliocentric theory idea that the earth and the other planets revolve around the sun

Galileo Galilei Italian scientist who invented the first working telescope; his discoveries put him into conflict with the Roman Catholic Church

scientific method logical procedure for gathering information and testing ideas

Isaac Newton English scientist who discovered laws of motion and gravity

deism Enlightenment belief that God created the universe and then allowed it to run on its own following natural laws

Before You Read

In the last lesson, you read about how Parliament limited the English monarchy.

In this lesson, you will read about how the Enlightenment transformed Europe and helped lead to the American Revolution.

As You Read

Use a chart to record developments in the Scientific Revolution.

THE ROOTS OF MODERN SCIENCE**How did modern science begin?**

During the Middle Ages, few scholars questioned beliefs that had been long held. Europeans based their ideas on what ancient Greeks and Romans believed, or on the Bible. People still thought that the earth was the center of the universe. They believed that the sun, moon, other planets, and stars moved around it. This is known as the **geocentric theory**.

In the mid-1500s, attitudes began to change. Scholars started what is called the **Scientific Revolution**. It was a new way of thinking about the natural world. It was based on careful observation and the willingness to question old beliefs. European voyages of exploration helped to bring about the Scientific Revolution.

1. What was the Scientific Revolution?

Lesson 1, *continued***A REVOLUTIONARY MODEL OF THE UNIVERSE; THE SCIENTIFIC METHOD****How did new ideas change accepted thinking in astronomy?**

The first challenge to accepted thinking in science came in astronomy. In the early 1500s, Nicolaus Copernicus, a Polish astronomer, studied the stars and planets. He developed a **heliocentric theory**. Heliocentric means sun-centered. It said that Earth, like all the other planets, revolved around the sun. This went against the geocentric theory that the earth was at the center of the universe. In the early 1600s, Johannes Kepler used mathematics to prove that Copernicus's basic idea was correct.

An Italian scientist, **Galileo Galilei**, made several discoveries that also undercut ancient ideas. He made an early telescope and used it to study the planets. He found that Jupiter had moons, the sun had spots, and Earth's moon was rough. Catholic Church authorities forced Galileo to take back his statements. Still, his ideas spread.

Interest in science led to a new approach, the **scientific method**. With this method, scientists ask a question, then form a hypothesis, or an attempt to answer the question. Then they test the hypothesis. Finally, they change the hypothesis if needed.

The English writer Francis Bacon helped create this new approach to knowledge. He said scientists should base their thinking on what they can observe and test. The French mathematician René Descartes also influenced the use of the scientific method. His thinking was based on logic and mathematics.

2. What old belief about the universe did the new discoveries destroy?

NEWTON EXPLAINS THE LAW OF GRAVITY; THE SCIENTIFIC REVOLUTION SPREADS**What scientific discoveries were made?**

In the mid-1600s, the English scientist **Isaac Newton** described the law of gravity. Using mathematics, Newton showed that the same force ruled both the motion of planets and the action of bodies on the earth. He believed that God created the universe and then such natural forces took over. This belief is called **deism**.

Other scientists made new tools to study the world around them. One invented a microscope.

Doctors also made advances. One made drawings that showed the different parts of the human body. Another learned how the heart pumped blood through the body. In the late 1700s, Edward Jenner first used the process called vaccination to prevent smallpox disease.

Scientists made progress in chemistry as well. Robert Boyle questioned the old idea that things were made of only four elements—earth, air, fire, and water. He believed that the physical world was made up of smaller components that joined together.

3. How did the science of medicine change?

Enlightenment and Revolution**Lesson 2****Enlightenment Thinkers****Key Terms and People**

Enlightenment 18th-century European movement in which thinkers attempted to apply the principles of reason and the scientific method to all aspects of society

social contract agreement by which people define and limit their individual rights, thus creating an organized society or government

John Locke English philosopher and founder of British empiricism; he developed political and economic theories during the Enlightenment. He declared that people have a right to rebel against governments that do not protect their rights.

philosophe one of a group of social thinkers in France during the Enlightenment

rationalism belief that truth could be found through reason or logical thinking

Voltaire French philosopher and author who believed in tolerance, reason, freedom of religious belief, and freedom of speech

Montesquieu French political philosopher who explored democratic theories of government; he proposed a government divided into three branches and greatly influenced the United States Constitution.

Rousseau Swiss-French political philosopher; he championed the freedom of the individual and the notion that all people were equal.

Before You Read

In the last lesson, you read about how the Scientific Revolution began in Europe.

In this lesson, you will read about how the Enlightenment began in Europe.

As You Read

Use a web diagram to summarize the ideas of different Enlightenment thinkers.

TWO VIEWS ON GOVERNMENT**What were the views of Hobbes and Locke?**

The **Enlightenment** was an intellectual movement. Enlightenment thinkers tried to apply reason and the scientific method to laws that shaped human actions. They hoped to build a society

founded on ideas of the Scientific Revolution. Two English writers—Thomas Hobbes and John Locke—were important to this movement. They came to very different conclusions about government and human nature.

Hobbes wrote that there would be a war of “every man against every man” if

Lesson 2, *continued*

there were no government. To avoid this war, Hobbes said, people formed a **social contract**. It was an agreement between people and their government. People gave up their rights to the government so they could live in a safe and orderly way. The best government, he said, is that of a strong king who can force all people to obey.

John Locke believed that people have three natural rights. They are life, liberty, and property. The purpose of government is to protect these rights. When it fails to do so, he said, people have a right to overthrow the government.

1. How were Hobbes’s and Locke’s views different?

THE PHILOSOPHES ADVOCATE REASON

Who were the philosophes?

French thinkers, called **philosophes**, had five main beliefs: (1) thinkers can find the truth by using reason—this is known as **rationalism**; (2) what is natural is good and reasonable, and human actions are shaped by natural laws; (3) acting according to nature can bring happiness; (4) by taking a scientific view, people and society can make progress and advance to a better life; and (5) by using reason, people can gain freedom.

The most brilliant of the philosophes was the writer **Voltaire**. He fought for tolerance, reason, freedom of religious belief, and freedom of speech. Baron de **Montesquieu** wrote about political freedom and separation of powers—dividing power among the separate branches of government. The third great philosophe was Jean Jacques **Rousseau**. He wrote in favor of human freedom. Rousseau believed that all people were naturally free and good but that civilization chained them. He wanted a true democracy in which all people were equal, and government was guided by the “general will” of the people. Cesare Beccaria was an Italian philosophe. He spoke out against abuses of justice and in favor of all people’s rights. He believed that laws should be based on fairness and reason.

2. Name the types of freedoms that Enlightenment thinkers championed.

Enlightenment and Revolution

Lesson 4

The American Revolution

Key Terms and People

Declaration of Independence document declaring American independence from Britain and the reasons for it.

Thomas Jefferson American statesman; third president of the United States; author of the Declaration of Independence and one of its signers.

checks and balances system in which each branch of government checks, or limits, the power of the other two branches.

federal system system of government in which power is divided between the national and state governments.

Bill of Rights first ten amendments to the U.S. Constitution, which protect citizens' basic rights and freedoms.

Before You Read

In the last lesson, you read about the spread of Enlightenment ideas in Europe.

In this lesson, you will read about how Enlightenment ideas influenced the American Revolution.

As You Read

Use a chart to list the causes and effects of the American Revolution.

BRITAIN AND ITS AMERICAN COLONIES

How were the colonies governed?

The British colonies in North America grew in population and wealth during the 1700s. The Population increased from about 250,000 in 1700 to 2,150,000 in 1770. Economically, they prospered through trade with the nations of Europe. The 13 colonies also had a kind of self-government. People in the colonies began to see themselves less and less as British subjects. Still, Parliament passed laws that governed the colonies. One set of laws banned trade with any nation other than Britain.

1. How did the colonists' image of themselves clash with their status as colonists?

Lesson 4, *continued***AMERICANS WIN INDEPENDENCE****What caused Britain and America to grow apart?**

The high cost of the French and Indian War led Parliament to tax the colonists. The colonists became very angry. They had never before paid taxes directly to the British government. They said that the taxes violated their rights. Since Parliament had no members from the colonies, they said, Parliament had no right to tax them.

The colonists met the first tax, passed in 1765, with a boycott of British goods. Their refusal to buy British products was very effective. It forced Parliament to repeal the law.

Over the next decade, the colonists and Britain grew further apart. Some colonists wanted to push the colonies to independence. They took actions that caused Britain to act harshly. Eventually, the conflict led to war. Representatives of the colonies met in a congress and formed an army. In July 1776, they announced that they were independent of Britain. They issued the **Declaration of Independence**. It was based on Enlightenment ideas. **Thomas Jefferson** wrote it.

From 1775 to 1781, the colonies and the British fought a war in North America. The colonists had a poorly equipped army, and Britain was one of the most powerful nations in the world. However, in the end, the colonies won their independence.

The British people grew tired of the cost of the war and pushed Parliament to agree to a peace. The Americans were also helped greatly by aid from France. In 1783, the two sides signed a treaty. In it, Britain recognized the independent United States of America.

2. Name some of the steps that led to the American Revolution.

AMERICANS CREATE A REPUBLIC**What are some fundamental ideas in the U.S. Constitution?**

The 13 states formed a new government under the Article of Confederation. This government was very weak. States held all the power, and the central government had little. This proved unworkable. In 1787, American leaders met again. They wrote a new framework of government.

The Constitution of the United States drew on many Enlightenment ideas. It used Montesquieu's idea of separation of powers into three branches of government. Through a system of **checks and balances**, each branch was able to prevent other branches from abusing their power. The Constitution also set up a **federal system**. Under this system, power was divided between national and state governments.

The Constitution also used Locke's idea of putting power in the hands of the people. It used Voltaire's ideas to protect the right to free speech and freedom of religion. It used Beccaria's ideas about a fair system of justice.

Many of these rights were ensured in a set of additions to the Constitution called the **Bill of Rights**. The inclusion of a Bill of Rights helped win approval for the Constitution.

3. Explain how the Constitution divides power.

The French Revolution and Napoleon

Lesson 1

The French Revolution Begins

Key Terms and People

Old Regime system of feudalism

estate social class of people

Louis XVI weak king who came to French throne in 1774

Marie Antoinette unpopular queen; wife of Louis XVI

Estates-General assembly of representatives from all three estates

National Assembly French congress established by representatives of the Third Estate

Tennis Court Oath promise made by Third Estate representatives to draw up a new constitution

Great Fear wave of panic

Before You Read

In the last lesson, you read about the Enlightenment and the American Revolution.

In this lesson, you will learn about the beginning of the French Revolution.

As You Read

Use a chart to take notes on the causes and effects of the early stages of the French Revolution.

THE OLD ORDER

How was French society unequal?

In the 1700s, France was the leading country of Europe. However, beneath the surface there were major problems.

A political and social system called the **Old Regime** remained in place. The French were divided into three classes, or **estates**. The First Estate consisted of the Roman Catholic clergy. The Second Estate was made up of nobles. Only about two percent of the people belonged to these two estates. Yet they owned 20 percent of the land.

Everybody else belonged to the Third Estate. This huge group included the bourgeoisie—merchants and skilled workers—city workers, and peasants.

Members of the Third Estate had few rights. They paid up to half of their income in taxes, while the rich paid almost none.

1. What were the three classes of French society?

Lesson 1, *continued*

THE FORCES OF CHANGE

Why were the French ready for the revolution?

Three factors led to revolution. First, the Enlightenment spread the idea that everyone should be equal. The powerless people in the Third Estate liked this idea. Second, the French economy was failing. High taxes kept profits low, and food supplies were short. The government owed money. Third, King **Louis XVI** was a weak leader. His wife, **Marie Antoinette**, was unpopular. She was from Austria, France’s long-time enemy, and was known for her extravagant spending.

In the 1780s, France was deep in debt. Louis tried to tax the nobles. Instead, they forced the king to call a meeting of the **Estates-General**, an assembly of delegates of the three estates.

2. What three factors led to revolution?

DAWN OF THE REVOLUTION

How did the Revolution begin?

The meeting of the Estates-General began in May 1789 with arguments over how to count votes. In the past, each estate would cast one vote. The Third Estate now wanted each delegate to have a vote. The king and the other estates did not agree to the plan because the Third Estate was larger and would have more votes.

The Third Estate then broke with the others and met separately. In June 1789, its delegates voted to rename themselves the **National Assembly**. They claimed to represent all the people. This was the beginning of representative government in France.

At one point, the members of the Third Estate were locked out of their meeting room. They broke down a door leading to a tennis court. Then they promised to stay there until they made a new constitution. This promise was called the **Tennis Court Oath**.

Louis tried to make peace. He ordered the clergy and nobles to join the National Assembly. However, trouble erupted. Rumors spread that foreign soldiers were going to attack French citizens. On July 14, an angry crowd captured the Bastille, a Paris prison. The mob wanted to get gunpowder for their weapons in order to defend the city.

3. Why did the National Assembly form?

A GREAT FEAR SWEEPS FRANCE

What was the Great Fear?

A wave of violence called the **Great Fear** swept the country. Peasants broke into and burned nobles’ houses. They tore up documents that had forced them to pay fees to the nobles. Late in 1789, a mob of women marched from Paris to the king’s palace at Versailles. They were angry about high bread prices and demanded that the king come to Paris. They hoped he would end hunger in the city. The king and queen left Versailles, never to return.

4. Who led the events that happened during the Great Fear?

The French Revolution and Napoleon**Lesson 2****Revolution Brings Reform and Terror****Key Terms and People**

Legislative Assembly assembly that replaced the National Assembly in 1791

émigré noble or other person who left France during the peasant uprisings and who hoped to come back to restore the old system

sans-culotte radical group of Parisian wage-earners

Jacobin member of the Jacobin Club, a radical political organization

guillotine machine for beheading people

Maximilien Robespierre revolutionary leader who tried to wipe out every trace of France's past monarchy and nobility

Reign of Terror period of Robespierre's rule

Before You Read

In the last lesson, you read how the French Revolution began.

In this lesson, you will learn what happened during the revolution.

As You Read

Use a timeline to identify the major events that followed the creation of the Constitution of 1791.

**THE ASSEMBLY REFORMS
FRANCE****What reforms resulted from the revolution?**

In August 1789, the National Assembly took steps to change France. One new law ended all the special rights that members of the First Estate and Second Estate had enjoyed. Another law gave French men equal rights. Though women did not get these rights, it was a bold step. Other laws gave the state power over the Catholic Church.

Catholic peasants remained loyal to the Church. They were angry that the Church would be part of the state.

Thereafter, many of them opposed the Revolution's reforms.

For months, the assembly worked on plans for a new government. During this time, Louis was fearful for his safety. One night, he and his family tried to escape the country. They were caught, brought back to Paris, and watched by guards. This escape attempt made the king and queen even more unpopular. It also increased the power of his enemies.

1. What new laws came into being?

Lesson 2, *continued*

DIVISIONS DEVELOP

What groups called for different kinds of changes?

In the fall of 1791, the assembly finished its new constitution. It took away most of the king’s power. The assembly then turned over its power to a new assembly, the **Legislative Assembly**.

This new assembly soon divided into groups. Radicals wanted to make many changes in the way government was run. Moderates wanted only some changes in government. Conservatives didn’t mind having a limited monarchy and wanted few changes in government.

Groups outside the Assembly wanted to influence the government, too. One group wanted to return to the old ways, before the Revolution. This group included the **émigrés**, nobles and others who had fled France earlier. Another group wanted even greater changes. This group included the **sans-culottes**. These wage earners and small shopkeepers wanted a greater voice in government.

- In what ways did the émigrés and sans-culottes have opposite goals?

WAR AND EXECUTION

What caused the French people to take extreme measures?

At the same time, France faced serious trouble on its borders. Kings in other countries feared that their people would revolt, too. They wanted to use force to give control of France back to Louis XVI. Soon, foreign soldiers were marching toward Paris. Many people thought that the king and queen were ready to help the enemy. Angry French citizens imprisoned them. Many nobles, priests, and other supporters of the

royalty were killed by the peasants.

The government took strong steps to reduce the danger of foreign troops. It took away all the king’s powers. In 1792, the National Convention—another new government—was formed. **Jacobins**, members of a radical political club, soon took control of this new government. They declared Louis a common citizen. He was then tried for treason and convicted. Like many others, the king was beheaded by a machine called the **guillotine**. The National Convention also ordered thousands of French people into the army.

- What happened to the king?

THE TERROR GRIPS FRANCE; END OF THE TERROR

What was the Reign of Terror?

Maximilien Robespierre became leader of France. He headed the Committee of Public Safety. It tried and put to death “enemies of the Revolution.” Thousands were killed. Robespierre’s rule, which began in 1793, was called the **Reign of Terror**. It ended in July 1794, when Robespierre himself was put to death.

The French people were tired of the killing and the unrest. They wanted a return to order. Moderate leaders drafted a new, less revolutionary plan of government.

- How long did the Reign of Terror last?

The French Revolution and Napoleon**Lesson 3**

Napoleon's Empire

Key Terms and People

Napoleon Bonaparte military leader who seized power in France

coup d'état sudden takeover of a government

plebiscite vote by the people

lycée government-run public school

concordat agreement

Napoleonic Code complete set of laws set up by Napoleon that eliminated many injustices

Battle of Trafalgar British defeat of Napoleon's forces at sea

blockade forced closing of ports

Continental System Napoleon's policy of preventing trade and communication between Great Britain and other European nations

guerrilla Spanish peasant fighter

Peninsular War war that Napoleon fought in Spain

scorched-earth policy policy of burning fields and slaughtering livestock so that enemy troops would find nothing to eat

Waterloo battle in Belgium that was Napoleon's final defeat

Hundred Days Napoleon's last bid for power, which ended at Waterloo

Before You Read

In the last lesson, you read about the Revolution's extremes, including the Reign of Terror.

In this lesson, you will learn how Napoleon grabbed power and brought order to France.

As You Read

Use a chart to analyze the goals and results of Napoleon's actions as emperor of France.

NAPOLÉON SEIZES POWER; NAPOLÉON RULES FRANCE

How did Napoleon rise to power?

In 1795, **Napoleon Bonaparte** led soldiers against French royalists who

were attacking the National Convention. Napoleon used troops to take control of the French government. This was a **coup d'état**, or a sudden takeover of power. Napoleon held the powers of a dictator.

Lesson 3, *continued*

In 1800, a **plebiscite**, or vote of the people, approved a new constitution. Napoleon took power as first consul. He started **lycées**—new public schools for ordinary male citizens. He signed a **concordat**, or agreement, with the pope. This gave the Church back some power.

He wrote a new set of laws, called the **Napoleonic Code**, which gave all French citizens the same rights. However, the new laws took away many individual rights won during the Revolution. For example, they limited free speech and restored slavery in French colonies.

1. What was the Napoleonic Code?

Napoleon lost 300,000 troops during this **Peninsular War**.

Napoleon’s third mistake was perhaps his worst. In 1812, he tried to conquer Russia. As the Russians retreated, however, they followed a **scorched-earth policy**. They burned their fields and killed their livestock so Napoleon’s armies could not eat what they left behind. Thousands of soldiers died from the bitter cold and hunger on their way home. Others deserted. Napoleon entered Russia with more than 420,000 soldiers but left with only 10,000.

2. What happened to Napoleon’s soldiers in Russia?

NAPOLEON CREATES AN EMPIRE; NAPOLEON’S COSTLY MISTAKES

What mistakes did Napoleon make abroad?

Napoleon had hoped to make his empire larger in both Europe and the New World. Napoleon’s only loss during this time was to the British navy in the **Battle of Trafalgar**.

Napoleon loved power. But his empire fell because he made three big mistakes.

His first mistake was caused by his desire to crush Britain’s economy. In 1806, he ordered a **blockade** and stopped all trade between Britain and other European nations. Napoleon called this policy the **Continental System**. It was to make continental Europe self-sufficient. It did not work as planned. Soon the French economy, along with others on the European continent, weakened.

Napoleon’s second mistake was to make his brother king of Spain in 1808. With help from Britain, groups of Spanish peasant fighters called **guerrillas** fought Napoleon for five years.

NAPOLEON’S DOWNFALL

How was Napoleon defeated?

Britain, Russia, Prussia, Sweden, and Austria joined forces and attacked France. In 1814, Napoleon gave up his throne and was sent away to the tiny island of Elba off the Italian coast.

In March 1815, Napoleon escaped from Elba and returned to France. He took power and raised another army.

The rest of the European powers raised armies to fight against Napoleon. They defeated Napoleon in his final battle near a Belgian town called **Waterloo**. This defeat ended Napoleon’s last attempt at power, which was called the **Hundred Days**. He was then sent to a far-off island in the southern Atlantic Ocean. He died there in 1821.

3. What was Napoleon’s last attempt at power, and where did it end?

The French Revolution and Napoleon

Lesson 4

The Congress of Vienna

Key Terms and People

Congress of Vienna meetings in Vienna for the purpose of restoring order to Europe

Klemens von Metternich key leader at the Congress of Vienna

balance of power condition in which no one country becomes a threat to another

legitimacy bringing back to power the kings that Napoleon had driven out

Holy Alliance league formed by Russia, Austria, and Prussia

Concert of Europe series of alliances to help prevent revolution

Before You Read

In the last lesson, you saw how Napoleon's empire collapsed.

In this lesson, you will learn how the rest of Europe reacted to both the French Revolution and Napoleon's rise and fall.

As You Read

Use a chart to take notes on the goals and outcomes of the Congress of Vienna.

METTERNICH'S PLAN FOR EUROPE

What was the Congress of Vienna?

In 1814, leaders of many nations met to draw up a peace plan for Europe. This series of meetings was called the **Congress of Vienna**. The most important person at the Congress of Vienna was the foreign minister of Austria, **Klemens von Metternich**. He developed the peace conditions that were finally accepted.

Metternich had three goals at the congress. First, he wanted the countries around France to be stronger. This would make sure that the French could not attack another country again.

Second, he wanted a **balance of power** in which no one nation was strong enough to threaten other nations. Third, he wanted **legitimacy**. This meant restoring monarchs to the thrones they had had before Napoleon's conquests. The other leaders agreed with Metternich's ideas.

Metternich achieved his first goal when the congress strengthened the small nations that surrounded France. Meanwhile, France was not punished too severely. It remained independent and was allowed to keep some overseas possessions. This helped achieve Metternich's second goal to create a balance of power.

Lesson 4, *continued*

The congress also worked to fulfill Metternich's third goal. Many rulers were returned to power in states throughout Europe, including France.

The Congress of Vienna created very successful peace agreements. None of the great powers fought against one another for 40 years. Some did not fight in a war for the rest of the century.

1. What three goals did Metternich have?

POLITICAL CHANGES BEYOND VIENNA

How did European leaders respond to the effects of the French Revolution?

Many European rulers were nervous about the effects of the French Revolution. In 1815, Czar Alexander of Russia, Emperor Francis I of Austria, and King Frederick William III of Prussia formed the **Holy Alliance**. Other alliances created by Metternich were called the **Concert of Europe**. The idea of these alliances was for nations to help one another if revolution came.

Across Europe, conservatives held control of European governments.

Conservatives were people who opposed the ideals of the French Revolution. They also usually supported the rights and powers of royalty. They did not encourage individual liberties. They did not want any calls for equal rights.

But many other people still believed in the ideals of the French Revolution. They thought that all people should be equal and share in power. Later they would again fight for these rights.

People in the Americas also felt the desire for freedom. Spanish colonies in the Americas revolted against the restored Spanish king. Many colonies won independence from Spain. National feeling grew in Europe, too. Soon, people in areas such as Italy, Germany, and Greece would rebel and form new nations. The French Revolution had changed the politics of Europe and beyond.

2. What happened to ideas about freedom and independence after the French Revolution?

Revolutions Sweep the West**Lesson 1**

Latin American Peoples Win Independence

Key Terms and People

peninsulare Latin American born in Spain

creole Spaniard born in Latin America

mulatto person of mixed European and African ancestry

Simón Bolívar leader of Venezuelan independence movement

José de San Martín leader who helped win independence for Chile and Argentina

Miguel Hidalgo priest who began the revolt against Spanish rule in Mexico

José María Morelos leader of the Mexican revolt after Hidalgo was defeated

Before You Read

In the last lesson, you read about revolution and the Congress of Vienna.

In this lesson, you will learn how Latin American countries became independent.

As You Read

Use a chart to identify details about Latin American independence movements.

COLONIAL SOCIETY DIVIDED**What classes existed in Latin American society?**

In Latin America, society was divided into six classes of people. *Peninsulares*—those born in Spain—were at the top. Next were **creoles**, or Spaniards who had been born in Latin America. Below them were mestizos. Mestizos had mixed European and Indian ancestry. Next were **mulattos**, with mixed European and African ancestry, and then Africans. At the bottom were Indians.

1. Which groups of society were of European ancestry?

REVOLUTIONS IN THE AMERICAS
Where in Latin America was independence first declared?

In the late 1700s, colonial peoples in Latin America fought for independence. The French colony of Saint Domingue was the first Latin American colony to fight for independence.

Lesson 1, *continued*

Almost all of the people who lived in the French colony were slaves of African origin. In 1791, about 100,000 of them rose in revolt. Toussaint L'Ouverture, a former slave, became their leader. In 1802, Napoleon sent troops to the island to end the rebellion. They failed. In 1804, the colony declared its independence as Haiti.

2. How did Haiti become independent?

CREOLES LEAD INDEPENDENCE
Why did creoles want independence?

Creoles felt that they were not treated fairly. This bad feeling boiled over when Napoleon overthrew the king of Spain and named his own brother as king. Creoles in Latin America had no loyalty to the new king. They revolted. Even after the old king was restored, they did not give up their fight for freedom.

Two leaders pushed much of South America to independence. **Simón Bolívar** was a writer, fighter, and political thinker. He survived defeats and exile to help win independence for Venezuela in 1821. **José de San Martín** helped win independence for Argentina in 1816 and Chile in 1818. Bolívar led their combined armies to a great victory in 1824. This victory gained independence for all the Spanish colonies.

3. Which two great leaders led the fights for independence in Venezuela, Chile, and Argentina?

MEXICO ENDS SPANISH RULE; BRAZIL'S ROYAL LIBERATOR
How did Mexico and Brazil achieve independence?

In Mexico, mestizos and Indians led the fight for independence. In 1810, **Miguel Hidalgo**, a village priest, called for a revolt against Spanish rule. Creoles united with the Spanish government to put down this revolt by the lower classes.

Hidalgo lost, but Padre **José María Morelos** took over leadership of the rebels. Fighting continued until 1815, when the creoles won.

After a revolution in Spain put a new government in power, the creoles joined with the other groups fighting for independence. In 1821, Mexico won its independence. In 1823, the region of Central America separated itself from Mexico.

In Brazil, 8,000 creoles signed a paper asking the son of Portugal's king to rule an independent Brazil. He agreed. Brazil became free that year through a bloodless revolt.

4. How were the drives for independence in Mexico and Brazil different?

The Industrial Revolution**Lesson 1****The Beginnings of Industrialization****Key Terms and People**

Industrial Revolution great increase in machine production that began in England in the 18th century

enclosure large closed-in field for farming

crop rotation planting a different crop in the same field each year to allow the soil to regenerate

industrialization process of developing machine production of goods

factors of production conditions needed to produce goods and services

factory building where goods are made

entrepreneur person who organizes, manages, and takes on the financial risk of a business enterprise

Henry Bessemer British engineer who developed a way to mass-produce steel cheaply

Before You Read

In the last lesson, you read about romanticism and realism in the arts.

In this lesson, you will read about the beginning of the Industrial Revolution.

As You Read

Answer questions in a chart to note important events in Britain's industrialization.

INDUSTRIAL REVOLUTION BEGINS IN BRITAIN**How did the Industrial Revolution begin?**

The **Industrial Revolution** was the great increase in production that began in England during the 18th century. Before the Industrial Revolution, people made most goods by hand. By the middle of the 1700s, more and more goods were made by machines.

The Industrial Revolution began with an agricultural revolution. In the early

1700s, large landowners in Britain bought much of the land that had been owned by poorer farmers. The landowners collected these lands into large fields closed in by fences or hedges. These fields were called **enclosures**. Many of the poor farmers who lost their lands became tenant farmers. Others gave up farming and moved to the cities. The growth in the number of people in cities to work in factories helped create the Industrial Revolution.

Lesson 1, *continued*

New farm methods made farmers more productive. For example, Jethro Tull invented a seed drill that made planting more efficient. Farmers also practiced **crop rotation**. Crop rotation is the practice of planting a different crop in the same field each year. This improves the quality of the soil.

Industrialization is the process of developing machine production of goods. For several reasons, Britain was the first country to industrialize.

Great Britain had all the resources needed for industrialization. These resources included coal, water, iron ore, rivers, harbors, and banks. Britain also had all the **factors of production** that the Industrial Revolution required. These factors of production included land, labor (workers), and capital (wealth).

1. Why was Britain the first country to industrialize?

INVENTIONS SPUR INDUSTRIALIZATION

What inventions helped change business?

The Industrial Revolution began in the textile industry. Several new inventions helped businesses make cloth and clothing more quickly. Richard Arkwright invented the water frame in 1769. It used water power to run spinning machines that made yarn. In 1779, Samuel Compton invented the spinning mule, which made better thread. In 1787, Edmund Cartwright developed the power loom. The power loom was a machine that sped up the cloth-making process.

These new inventions were large and expensive machines. They needed large

factories to house and run these machines. **Entrepreneurs**, or people who start and manage businesses, built the factories near rivers because these machines ran on water power.

2. How was the textile industry changed by the new inventions?

IMPROVEMENTS IN TRANSPORTATION; THE RAILWAY AGE BEGINS

The invention of the steam engine in 1705 brought in a new source of power. The steam engine used fire to heat water and produce steam. The power of the steam drove the engine. Eventually steam-driven engines were used to run factories and shipping boats.

Starting in the 1820s, steam brought a new burst of industrial growth. George Stephenson, a British engineer, set up the world's first railroad line. It used a steam-driven locomotive. **Henry Bessemer**, a British engineer, devised a way to make steel in large quantities. Railroad rails were made using the inexpensive steel. Soon, railroads were being built all over Britain.

The railroad boom helped business owners move their goods to market more quickly. These changes created thousands of new jobs in several different industries. Millions of British people, including the middle class, also enjoyed the trains. Even Queen Victoria regularly traveled by train.

3. What effects did the invention of the steam engine have?

The Industrial Revolution**Lesson 2**

Industrialization

Case Study: Manchester

Key Terms and People

urbanization city building and the movement of people to cities

middle class social class of skilled workers, professionals, business people, and wealthy farmers

Before You Read

In the last lesson, you read about the Industrial Revolution.

In this lesson, you will read about some of its effects.

As You Read

Use an outline to organize the summaries' main ideas and details.

INDUSTRIALIZATION CHANGES LIFE

How did industrialization change people's ways of life?

Industrialization brought many changes to the British people. More people could use coal to heat their homes, eat better food, and wear better clothing.

Another change was **urbanization**—city building and the movement of people to cities. For centuries, most people in Europe had lived in the country. By the 1800s, more and more people lived in cities, where they had come to find jobs.

Living conditions were bad in crowded cities. Many people could not find good housing, schools, or police protection. Filth, garbage, and sickness were part of life in the slums. A person in a city could expect to live 17 years. In

the countryside, a person could expect to live 38 years.

Working conditions were also bad. The average worker spent 14 hours a day on the job, 6 days a week. Many workers were killed or seriously injured in accidents.

1. What were major changes in living conditions and working conditions?

CLASS TENSIONS GROW; POSITIVE EFFECTS OF THE INDUSTRIAL REVOLUTION

Who were the members of the middle class?

Some people's lives were improved in the new economy. The Industrial Revolution created new wealth for the

Lesson 2, *continued*

middle class, which included skilled workers, professionals, business people, and wealthy farmers. People in the middle class enjoyed comfortable lives in pleasant homes. This class began to grow in size. Some people grew wealthier than the nobles who had been in control for many centuries.

The Industrial Revolution had many good effects. It created wealth. It created jobs for workers and over time helped many of them live better lives. It produced better diets, better housing, and better clothing at lower prices.

2. How did industrialization affect the middle class?

THE MILLS OF MANCHESTER

What changes occurred in Manchester?

The English city of Manchester is a good example of how industrialization changed society. Rapid growth made the

city crowded and filthy. The factory owners risked their money and worked long hours to make their businesses grow. In return, they enjoyed huge profits and built huge houses. The workers also worked long hours but had few benefits. Many of these workers were children, some only six years old. The British government did not limit the use of children as workers until 1819.

The large amount of industry in Manchester caused environmental problems. Coal smoke and cloth dyes from the factories polluted the air and water. Yet Manchester also created many jobs, a variety of consumer goods, and great wealth.

3. Why is Manchester a good example of how industrialization changed cities?

The Industrial Revolution

Lesson 3

Industrialization Spreads

Key Terms and People

mass production system of manufacturing large quantities of identical items

interchangeable parts machine parts that are identical and manufactured by machine

assembly line each worker does one step of a manufacturing processes

division of labor different workers doing individual and different tasks

specialization separation of tasks

economic interdependence people in a society relying on other people

stock right of ownership in a company called a corporation

corporation business owned by stockholders who share in its profits but are not responsible for its debts

Before You Read

In the last lesson, you read about some of the effects of industrialization.

In this lesson, you will see how industrialization spread to other nations.

As You Read

Use a chart to compare industrialization in the United States, in Europe, and around the world.

INDUSTRIAL DEVELOPMENT IN THE UNITED STATES

How did industrialization begin in the United States?

The United States was one of the first to industrialize after Great Britain. Like Britain, the United States had a great deal of coal and water to create power. There was also plenty of iron. In addition, immigrants in the United States created a large supply of workers.

The United States also benefited from conflict with Britain. During the War of 1812, Britain stopped shipping goods to

the United States. As a result, American industries began to make many of the goods that Americans wanted.

In the United States, industrialization began in the textile industry. In 1789, Samuel Slater, a British worker, brought the secret of Britain's textile machines to North America. Slater built a machine to spin thread.

In 1813, a group of Massachusetts investors built textile factories in Waltham, Massachusetts. Just a few years later they built even more factories in the Massachusetts town of Lowell.

Lesson 3, *continued*

Thousands of workers, mostly young girls, came to work in the factories.

Americans developed the system of making a large amount of the same product, called **mass production**.

Machines use identical parts, called **interchangeable parts**. These parts can be mass produced quickly and then assembled so that the machines work exactly the same. Replacement parts are easy to get, and they fit perfectly.

Changes were made in factories, too. Products moved from worker to worker on an **assembly line**. Each worker did one step of the work. Having different workers do different tasks is called **division of labor**. Workers learn a specific task. Separating tasks to make a process more efficient is called **specialization**.

Industrialization caused **economic interdependence**. People needed the resources of other people. People did not have to make everything they needed.

Businesses needed huge sums of money to do big projects. To raise money, companies sold **stock**. Stocks are shares of ownership in a company. All those who held stock were part owners of the company. This form of business organization is called a **corporation**.

1. How did industrialization begin in the United States?

CONTINENTAL EUROPE INDUSTRIALIZES

Where did industrialization begin in continental Europe?

Industrial growth also spread from England to the European continent. Belgium was the first to industrialize.

It was rich in iron and coal. The country also had good waterways.

Germany was divided politically until the late 1800s. However, the Ruhr Valley in western Germany was rich in coal. It became a leading industrial region.

Industrial growth did not occur in France until after 1830. It was helped by the government's construction of a large network of railroads. Austria-Hungary and Spain faced transportation problems that held them back from industrializing.

2. Which nation industrialized first, and why?

THE IMPACT OF INDUSTRIALIZATION

How did industrialization change the world?

The countries of Europe soon began to take advantage of Africa and Asia. Europeans wanted to use these lands as sources of raw materials for their factories.

The European nations took control of lands in many areas of the world outside of Europe. This practice is called imperialism.

The Industrial Revolution that took place in the 1700s and 1800s changed life forever in the countries that industrialized. Problems caused by industrialization led to movements for social reform.

3. How did industrialization lead to imperialism?

The Industrial Revolution

Lesson 4

Reforming the Industrial World

Key Terms and People

laissez faire economic theory that argues that governments should not interfere with business affairs

Adam Smith philosopher who defended laissez-faire economics

capitalism economic system in which people invest money to make a profit

utilitarianism belief that an idea is only as good as it is useful

socialism belief that businesses should be owned by society as a whole

Karl Marx economic thinker who wrote about a radical form of socialism

communism form of socialism in which all production is owned by the people

anarchism belief that people should be able to develop freely without government interference

union organized groups of workers that bargain with business owners to get better pay and working conditions

strike organized refusal to work

Before You Read

In the last lesson, you read about how industrialization spread to different nations.

In this lesson, you will learn about new ideas and reforms.

As You Read

Use a chart to summarize the characteristics of capitalism and socialism.

THE PHILOSOPHERS OF INDUSTRIALIZATION

What is capitalism?

Industrialization led to new ways of thinking about society. Some economists thought that the government should leave business owners alone. This view is called **laissez faire**.

Adam Smith argued that governments should not put limits on business. He and others, including British economists

Thomas Malthus and David Ricardo, supported a system called **capitalism**. In a capitalist economy, people invest their money in businesses to make a profit.

Smith and the others believed that society would benefit over time from this system. Supporters of laissez faire opposed laws to protect workers.

1. How does capitalism work?

Lesson 4, *continued*

**THE RISE OF SOCIALISM;
MARXISM: RADICAL SOCIALISM**

What is socialism?

Other thinkers challenged capitalism. One group was called the **utilitarians**. They thought it was unfair that workers should work so hard for such little pay and live in such poor conditions.

Some thinkers wanted society as a whole to own businesses. This way, all people would enjoy the benefits of increased production. This view—called **socialism**—grew out of a belief in progress and a concern for justice.

A German thinker named **Karl Marx** proposed a form of socialism that became known as Marxism. He said that factory owners and workers would struggle for power. Over time, he said, the capitalist system would destroy itself.

Marx wrote *The Communist Manifesto*. It described **communism**, a form of socialism in which production is controlled by the people.

Anarchism also gained popularity during this time. Anarchists believe government is harmful. Some believers went too far. Between 1890 and 1901, a number of politicians were killed and terrorist acts were carried out.

- How are the ideas of capitalism and socialism different?

LABOR UNIONS AND REFORM LAWS

How did workers take action to improve their lives?

While thinkers discussed these ideas, workers fought to improve their lives. Many workers joined **unions**. A union is a group of workers that tries to bargain with employers for better pay and better

working conditions.

When employers resisted these efforts, the workers went on **strike**, or refused to work. British and American workers struggled for a long time for the right to form unions.

Britain also passed laws to limit how much work women and children could do. Groups in the United States pushed for similar laws.

- How did both the government and workers themselves try to improve workers' lives?

THE REFORM MOVEMENT SPREADS

What other reforms were taking place at this time?

Ending slavery was a major reform movement of the 1800s. The British Parliament ended the slave trade in 1807. It then abolished slavery in British territories in 1833.

Slavery was finally abolished in the United States in 1865, after the Civil War. Spain ended slavery in Puerto Rico in 1873 and in Cuba in 1886. Brazil was the last country to ban slavery, in 1888.

Women were active in many reform movements. Many women fought for equal rights for women. In 1888, women from around the world formed a group dedicated to this cause.

Reformers took on other projects as well. They pushed to improve education and the conditions in prisons.

- Name two major reform movements of the 1800s.
